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DEPARTMENT OF NATURAL RESOURCES

Division of Oil, Gas & Mining

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[Signature]

Inspection Report

Minerals Regulatory Program

October 11, 2005

Mine Name: Rowley/Stansbury
Operator Name: U.S. Magnesium, LLC

Permit number: M/045/008
Inspection Date: Sept. 29, 2005
Time: 12:30

Inspector(s): Lynn Kunzler, DOGM
Other Participants: Tom Tripp
Mine Status: Active

Weather:

Elements of Inspection	Evaluated	Comment	Enforcement
1. Permits, Revisions, Transfer, Bonds	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2. Public Safety (shafts, adits, trash, signs, highwalls)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Protection of Drainages / Erosion Control	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Deleterious Material	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Roads (maintenance, surfacing, dust control, safety)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Concurrent Reclamation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Backfilling/Grading (trenches, pits, roads,	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. Soils	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. Revegetation	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
10. Other	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Purpose of Inspection:

This inspection was conducted primarily to evaluate the reclamation efforts that were completed in November of 2003.

Inspection Summary:

- The mine is active, however, in 2003 approximately 230 acres were reclaimed (reggraded and seeded). Magnesium Corporation of America had mined this area for oolitic sands (a calcium source for processing). The oolitic sands are no longer used for processing. The permit was transferred to U.S. Magnesium, LLC, who participated in the reclamation efforts by performing all the required regrading. The Division arranged for weed control on State and Fee properties and seeded the site, using forfeited bond monies from MagCorp.
- The vegetation establishment was evaluated and data collected from areas that were reclaimed in 2003. After casual observations, it was determined to collect several sets of data. Using a point intercept, with ten points per transect, data was collected from the reclaimed area north of the plant. Vegetation establishment on areas south of the plant was so poor that it was felt data collection was not appropriate at this time. A vegetation report is attached.

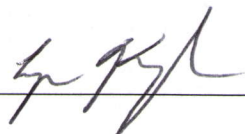
Photos were taken and are in the file.

Page 2
Site Inspection
M/045/008
October 11, 2005

Conclusions and Recommendations:

Continue to monitor the site when in the area. Next inspection should focus more on current operations.

Inspector's Signature _____



Date: October 11, 2005

Attachment: Vegetation Report

LK:jb

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Vegetation Report
2003 Revegetation Program
Stansbury/Rowley
M/045/008
September 29, 2005

Observations:

(note: this is the second growing season since the area was seeded).

Area 1

Large area north of plant site.

Pre-treatment - Dominated by cheatgrass and greasewood

clay bottom areas had some squirrel tail and greasewood - less than 10% cover

After casual observations, it was apparent that vegetation response was different, based not only on treatment, but position (top, slope bottom). Pre-treatment conditions had clay bottomlands, with sandy islands about 3 feet higher in elevation. The transition from the top to the bottom was near angle of repose. The grading work reduced this slope to approximately 3h:1v. On the unsprayed area (BLM) this slope position had a significant increase in desirable vegetation. Thus it was sampled separately (sample set 'c'). the top areas are sample set 'a' and the clay bottom is sample set 'b'.

SITLA property (north)

Treatment: limited regrading, herbicide treatment With Plateau and MSO

Drill seeded

a- 10,40,10,50,20,0,10,70,30,20,10,40,30,0,0,10,20,20,10,20 - 410/20=20.5%

b- 0,0,10,0,20,0,10,0,0,30,0,10,0,10,0,0,10,20,0,10 - 130/20=6.5%

Cheatgrass was visually estimated to be 20-30 percent on slope and tops, less than 2% on clay bottom. Halogeton, an annual mustard and annual kochia were locally abundant.

BLM property (center)

Treatments: limited regrading, Drill seeded.

a-0,0,0,0,0,0,0,0,0,10,0,0,0,10,0,0,0,10,0 - 30/20=1.5%

b-0,10,0,10,0,20,0,0,10,0,0,20,0,0,10,0,10,0,10,10 - 110/20=5.5%

c-0,0,10,0,0,20,0,0,10,0,0,10,10,20,10,0,0,20,10 - 130/20=6.5%

Overall, vegetation cover of desirable species was 2-5%. Cheatgrass dominated the area with some transects showing 90% ground cover, halogeton, an annual mustard and annual kochia were locally abundant.

Fee property (south)

Treatment: limited regrading, herbicide treatment with Plateau and MSO

Drill Seeded

a-20,10,20,10,30,10,10,50,20,10,40,10,20,60,10,10,40,20,0,10 - $430/20=21.5\%$

b-10,0,0,20,10,0,0,10,0,10,0,10,20,0,0,0,10,30,0,10 - $140/20=7\%$

overall response of vegetation was very similar to the SITLA property to the north.

This was the only area where shadscale establishment from the seeding was observed (few plants in a localized area). Also, forage kochia was more abundant in this area as well.

Area 2

Small areas north of the plant site

Very little vegetation, mostly halogeton some volunteer shadscale.

Heavier (clay) soils

No data collected, observations show a increase in weedy species (halogeton, tumbleweed and summer cypress. One small area had good establishment of shadscale, most of which was not from seed mix. No grass or forage kochia plants observed.

Area 3

Area south of the plant site

Dominated by greasewood, some tamarisk, halogeton and cheatgrass (minor amount).

Heavier soils (clay)

No data collected from this area

Reconnaissance survey showed very little establishment of seeded species (shadscale, forage kochia, crested wheatgrass? and indian ricegrass). Most grass plants were very stunted (single blade 1-3 inches long. plants (visual estimate of less than 2% cover) localized areas where grass establishment was better, the grass had been heavily grazed (rabbits) to within 1/2- inch of the soil. Ground cover in these areas could likely have been in the 10-20% ground cover range. Most forage kochia in this area was also heavily grazed. Drilling also seemed to have an effect on tumble weed (Russian thistle) summer cypress (*Kochia scoparia*) and halogeton, with a visually marked increase in these species when compared to unseeded areas (established weedy plants were predominantly in the drill rows).

Summary and Conclusions:

Seeded species observed (in apparent order of dominance) included crested wheatgrass, tall wheatgrass, forage kochia, indian rice grass, squireltail, and shadscale (shadscale was almost non-existent). There were significant areas that the desirable vegetation had been grazed heavily (rabbits small rodents and antelope) to within 1/2 inch of the ground. Grass species could not be identified in these areas. Cover values for the desirable species would have been higher if plants had been protected from grazing. The cheatgrass did not seem to be impacted by the animals. Desirable vegetation was only established in areas that either 1 - had no weeds (primarily cheatgrass), or 2 - where

weeds had been controlled by either mechanical or chemical means (chemical treatment provided the best results). If this is typical of cheatgrass infested lands, one would conclude that unless something is done to control cheatgrass, efforts to reseed with desirable species is fruitless. With cheatgrass control (at least for one season). Desirable vegetation can be established.

Other noteworthy observations include:

- Most established vegetation, whether seeded or natural (including weeds), was established in the drill furrows. Apparently taking advantage of disturbing the soil crust, or micro water harvesting.
- The disturbance caused by the drill also 'released' weeding species that were not apparent in the pre-seeded areas (seed bank issue - how long will seed stay viable in the seed bank (soil) without germination.
- Weed competition was not the only stress factor of desirable vegetation. Grazing by rabbits, antelope and small rodents had a significant impact on vegetation. May need to consider other 'pest' control in addition to weed control.